



Olympic Peninsula Demand Exchange Pilot Project

The Bonneville Power Administration is committed to providing reliable power to the Pacific Northwest. BPA is piloting a demand response program on the Olympic Peninsula to obtain information about how well this approach works for reducing transmission line loading during peak events.

Project Description

Demand Exchange™ is a market mechanism that facilitates notification about a need for demand reduction 24 hours in advance of the need. It gives participants a way to bid their available on-site generation and demand resources for use.

The Olympic Peninsula Demand Exchange Pilot Project is a limited-scope effort to evaluate this market-based approach to reducing peak demand on the transmission system. Line loading reaches a maximum during extreme cold weather events. There may be industrial, commercial or even residential customers that would be willing to move load off-peak for compensation during these weather events or during unforeseen situations where transmission capacity is limited.

During emergency situations, demand reduction may be able to prevent loss of service due to overloading. Demand resources may also be effective as part of a portfolio of supply and demand resources to defer certain line reinforcement projects for a meaningful amount of time (such as for several years).

Project Objectives

BPA's Power Business Line uses the Demand Exchange to purchase demand reductions when the energy market is high. The Olympic Peninsula pilot is expanding on that experience and is working towards the locational value of demand reduction to BPA's transmission system.

One of this pilot project's objectives is to find out what price participants expect to get for reducing demand or operating self-generation. BPA is setting up the demand exchange with iteration ability so that participants can adjust bids or BPA can raise the offer if an initial offering does not result in sufficient demand reduction to meet the need.

There is a regulatory trend toward allowing demand resources to be viewed as equal to generating resources for meeting capacity needs. BPA's pilot project should provide information about how well this particular approach works towards meeting short duration capacity needs. BPA may be able to assess how the duration of the need for demand relates to the participant's willingness to move loads off peak. For example, will participants still be as willing to move loads off peak on the sixth day of cold weather event as they were on the first day of the event?

Project Schedule

BPA is currently working to recruit and contract with seven pilot participants (whole utility aggregated or individual facilities) to exercise the demand exchange several times during the winter of 2002-2003. Any follow-on work beyond 2003 is subject to need and the availability of funds.

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This map shows the transmission system serving the Olympic Peninsula.

Project Budget

BPA has budgeted \$150,000 towards this project (not related to staff time.) BPA estimates that about \$50,000 is needed to set up the Demand Exchange and approximately \$7,000 is needed for setting up each participant's individual account. The remainder of the budget will be available for purchasing demand resources during the winter of 2002-2003.

Questions and Comments

If you have questions or would like more information about the project, please call BPA Project Manager Mark Jackson, toll-free at 1-888-276-7790.

